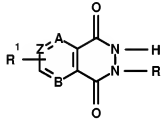
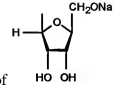
LISTING OF CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1-27. (Cancelled)

28. (New) A method of treating diseases caused by disorders of nitrergic system and/or dopaminergic system of an organism comprising administering an active ingredient having normalizing effect with respect to nitrergic and dopaminergic systems, wherein the active ingredient is present in a pharmaceutically-acceptable carrier in an amount sufficient for effecting said systems, said active ingredient being a cyclic bioisostere of derivatives of a purine system having a general structural formula



where R is selected from the group consisting of 

, Li, Na, and K;

R^1 is selected from the group consisting of -H, -NH_2, -Br, -Cl, -OH, and -COOH;

A is selected from the group consisting of -N= and -C=;

B is selected from the group consisting of -N= and –C=;

Z is selected from the group consisting of -C= and -N=;

wherein when A is -N= , then B is -N= and Z is -C=,

or pharmacologically acceptable salts thereof.

29. (New) The method as claimed in claim 28, wherein said active ingredient is selected from the group consisting of:

sodium salt of 7-(P-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-amino-7-(P-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 3-bromo-7-(P-D-ribofuranosile)pyrido[2,3- d]-6H-pyridazine-5,8-dione;

disodium salt of 4-hydroxy-7-(P-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;

disodium salt of 3-carboxy-7-(P-D-ribofuranosile)pyrido[2,3-d]-6H-pyridazine-5,8-dione;,

lithium salt of pyrido [2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of pyrido [2,3-d]-6H-pyridazine-5,8-dione;

potassium salt of pyrido [2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-(P-D-ribofuranosile)benzo[d]-3H-pyridazine-l,4-dione;

sodium salt of 5-amino-2-(p-D-ribofuranosile)benzo[d]-3H-pyridazine-l,4-dione;

sodium salt of 6-amino-2-(3-D-ribofuranosile)benzo[d]-3H-pyridazine-l,4-dione;

sodium salt of 5-chloro-2-(P-D-ribofuranosile)benzo[d]-3H-pyridazine-l,4-dione;

disodium salt of 5-hydroxy-2-(P-D-ribofuranosile)benzo[d]-3H-pyridazine-l,4-dione;

lithium salt of 5-amino-benzo[d]-3H-pyridazine-l,4-dione;

sodium salt of 5-amino-benzo[d]-3H-pyridazine-l,4-dione;

potassium salt of 6-amino-benzo[d]-3H-pyridazine-l,4-dione;

disodium salt of 5-hydroxy-benzo[d]-3H-pyridazine-l,4-dione;

disodium salt of 6-carboxy-benzo[d]-3H-pyridazine-l,4-dione;

sodium salt of 7-(P-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-amino-7-(P-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 3-amino-7-(P-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 3-bromo-7-(P-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

disodium salt of 2-hydroxy-7-(p-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

disodium salt of 2-carboxy-7-(P-D-ribofuranosile)pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

lithium salt of pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

potassium salt of 3-bromo-pyrazine[2,3-d]-6H- pyridazine-5,8-dione;

sodium salt of 2-amino-pyrazine[2,3-d]-6H-pyridazine-5,8-dione;

sodium salt of 7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-amino-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-amino-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-bromo-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-hydroxy-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 4-carboxy-7-(β-D-ribofuranosile)pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

lithium salt of pyrimido[4,5-d]-6H-pyridazine-5,8-dione;

sodium salt of 2-amino-pyrimido[4,5-d]-6H-pyridazine-5,8-dione; and

potassium salt of 4-bromo-pyrimido[4,5-d]-6H-pyridazine –5,8-dione.

30. (New) The method as claimed in claim 28, wherein the active ingredient is used as a neuroprotector in a pharmaceutical composition for protection of a nervous system.

31. (New) The method as claimed in claim 28, wherein the active ingredient is used in a pharmaceutical composition for improvement of cognitive function and normalization of psychophysiological status.

32. (New) The method as claimed in claim 28, wherein the active ingredient is used in a pharmaceutical composition of anxiolytic and antidepressive action.

33. (New) The method as claimed in claim 28, wherein the diseases are selected from the group consisting of: diseases caused by drug abuse; insomnia; sexual disorders/sexual dysfunction; gastro-intestinal disorders; psychoses; inorganic psychoses; affective disorders; personality disorders; psychiatric disorders of mood; schizophrenia and schizoaffective disorders; polydipsia; bipolar disorders; dysphoric mania; anxiety and associated diseases; obesity; bacterial infections of the central nervous system; disorders of learning; disorders of memory; Parkinson's disease; neurodegenerative diseases; Alzheimer's disease; depression; extrapyramidal side effects of neuroleptics; hypothalamic-pituitary effects; vascular and cardiovascular diseases; dystonia; dyskinesia; hyperkinesis; dementia; ischemia; motion disorders; hypertension; and diseases caused by a hyperactive immune system.